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| 10/069,917 | 07/24/2002 | Klaus David Gradischnig | INTE00010U/US | 7067 |

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| EXAMINER | |
|---|---|
| TORRES, JUAN A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2611 | |

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/069,917 | GRADISCHNIG ET AL. | |
| | Examiner | Art Unit | |
| | Juan A. Torres | 2611 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *24 July 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 5-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 5-9 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore:

a) The "a receiver device; a transmission buffer in which the messages wait until their reception has been confirmed by the receiver device of the protocol system, the transmission buffer further configured to carry a state value that specifies whether a message has already been retransmitted at least once; control messages that are received by the receiver device that can contain repetition requests with respect to at least one transmitted message; control messages of a first type that do not trigger any unnecessary repetitions when their order is duplicated or swapped by a transport layer used; control messages of a second type that may trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used; wherein the transmitter is configured to ignore a repetition request contained in a control message of the second type if the state value in the transmission buffer specifies that the message has already been retransmitted at least once" (see claims 1) ; and "a timer configured to ensure that, in the case of control messages of the first type, that these control messages do not trigger any unnecessary repetitions when their order is duplicated or swapped by the transport layer used" (see claim 6); must be shown or the feature(s) canceled from the claim(s).

b) The "A method for transmitting messages, comprising transmitting messages from a transmission buffer of a transmitter to a receiver; holding the messages in the

transmission buffer until their reception has been confirmed by the receiver; receiving control messages of a first type from the receiver containing repetition requests with respect to at least one of the transmitted messages which ensure that the first type control messages do not trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used; receiving control messages of a second type from the receiver containing repetition requests with respect to at least one of the transmitted messages which do not ensure that the second type of control messages do not trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used; providing a state variable in the transmission buffer that carries a state specifying whether a message has already been retransmitted at least once; and ignoring, by the transmitter, a repetition request contained in the second type control messages if the state in the transmission buffer specifies that the message has already been retransmitted at least once" (see claim 9) must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Figures 1 and 2 are described in the background section of the specification, so they are admitted prior art.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

Claims 5-9 are objected to because of the following informalities:

As per claim 5, claim 5 is objected because the recitation in line 15 of claim 5 "if the state" is improper because the use the word "if" render the claim indefiniteness (35 USC 112 2nd paragraph indefinite); it is clear what it happens if the condition is met, but if that condition is not met is indefinite. It is suggested to change the word "if" to "when".

As per claims 6-8, claims 6-8 are objected because they depend directly from claim 5 and claim 5 is objected.

As per claim 9, claim 9 is objected because the recitation in line 17 of claim 9 "if the state" is improper because the use the word "if" render the claim indefiniteness (35 USC 112 2nd paragraph indefinite); it is clear what it happens if the condition is met, but if that condition is not met is indefinite. It is suggested to change the word "if" to "when".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 5, the recitation in lines 1-3 of claim 5 "A transmitter of a protocol system for transmitting messages, comprising: a receiver device" (emphasis added) is vague and indefinite, it is not understood how a transmitter (the is used only to transmit) can comprise a receiver (that is used only to receive).

As per claims 6-8, claims 6-8 are rejected because they depend directly from claim 5 and claim 5 is rejected.

As per claim 9, the recitation in lines 1-13 of claim 9 "A method for transmitting messages, comprising: transmitting messages from a transmission buffer of a transmitter to a receiver; holding the messages in the transmission buffer until their reception has been confirmed by the receiver; receiving control messages of a first type from the receiver containing repetition requests with respect to at least one of the transmitted messages which ensure that the first type control messages do not trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used; receiving control messages of a second type from the receiver containing repetition requests with respect to at least one of the transmitted messages which do

not ensure that the second type of control messages do not trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used" (emphasis added) is vague and indefinite, it is not understood how a method for transmitting (the is used only to transmit) can comprise a receiver to receive control messages (that is used only to receive).

Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 5, the recitation in line 1-16 of claim 5 "A transmitter of a protocol system for transmitting messages, comprising: a receiver device; a transmission buffer in which the messages wait until their reception has been confirmed by the receiver device of the protocol system, the transmission buffer further configured to carry a state value that specifies whether a message has already been retransmitted at least once; control messages that are received by the receiver device that can contain repetition requests with respect to at least one transmitted message; control messages of a first type that do not trigger any unnecessary repetitions when their order is duplicated or swapped by a transport layer used; control messages of a second type that may trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used; wherein the transmitter is configured to ignore a repetition request contained in a control message of the second type if the state value in the transmission buffer specifies that the message has already been retransmitted at least once" (emphasis

added) is vague and indefinite. Claim 5 is an apparatus claim and it is not understood which apparatus is performing the three control message limitation.

As per claims 6-8, claims 6-8 are rejected because they depend directly from claim 5 and claim 5 is rejected.

Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 5, the recitation in line 16 of claim 5 "message has already been retransmitted at least once" (emphasis added) is vague and indefinite, it is not understood how a message can be retransmitted more than one time.

As per claims 6-8, claims 6-8 are rejected because they depend directly from claim 5 and claim 5 is rejected.

As per claim 9, the recitation in line 18 of claim 9 message "message has already been retransmitted at least once" (emphasis added) is vague and indefinite, it is not understood how a message can be retransmitted more than one time.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over ITU-T Q.2111 ([COM11-R173] Report of the meeting held in Washington D.C (United

States) 1 July 1999, Part II - Draft new ITU-T Recommendation Q.2111, Proposed for approval under resolution 1 (Geneva, 1996)) in view of Hamilton (US 6392993 B1).

As per claim 5, Q.2111 discloses a receiver device (page 103 line 7); a transmission buffer in which the messages wait until their reception has been confirmed by the receiver device of the protocol system (page 108 last two lines); control messages that are received by the receiver device that can contain repetition requests with respect to at least one transmitted message (figures II.5 to II.18; page 104 last paragraph; page 109); control messages of a first type that do not trigger any unnecessary repetitions when their order is duplicated or swapped by a transport layer used (page107-108 section II.4 figure II.17); control messages of a second type that may trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used (page107-108 section II.4 figure II.17 and II.18). Q.2111 doesn't specifically discloses the transmission buffer further configured to carry a state value that specifies whether a message has already been retransmitted at least once; and that wherein the transmitter is configured to ignore a repetition request contained in a control message of the second type when the state value in the transmission buffer specifies that the message has already been retransmitted at least once. Hamilton discloses the transmission buffer further configured to carry a state value that specifies whether a message has already been retransmitted at least once (figure 7 block 134; column 18 lines 46-64); and that wherein the transmitter is configured to ignore a repetition request contained in a control message of the second type when the state value in the transmission buffer specifies that the message has already been

retransmitted at least once (figure 7 block 132; column 18 lines 46-64). Q.2111 and Hamilton are analogous art because they are from the same field of ARQ systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the error recovery disclosed by Q.2111 the retransmission technique disclosed by Hamilton. The suggestion/motivation for doing so would have been to number of retransmissions and to reduce the network traffic (Hamilton column 18 lines 55-61).

As per claim 6, Q.2111 and Hamilton discloses claim 5, Q.2111 also discloses a timer configured to ensure that, in the case of control messages of the first type, that these control messages do not trigger any unnecessary repetitions when their order is duplicated or swapped by the transport layer used (page107-108 section II.4 Timer-RESEQ figure II.17 and II.18).

As per claim 7, Q.2111 and Hamilton discloses claim 5, Q.2111 also discloses sequence numbers, the transmitter being configured to exchange the sequence numbers to ensure that, in the case of control messages of the first type, these messages do not trigger any unnecessary repetitions when their order is duplicated or swapped by the transport layer used (page 103 line 5; pages 107-108 N(S)).

As per claim 8, Q.2111 and Hamilton discloses claim 5, Q.2111 also discloses a protocol system Q.2111 (pages 101-109).

As per claim 9, Q.2111 discloses transmitting messages from a transmission buffer of a transmitter to a receiver (pages 101-109) ; holding the messages in the transmission buffer until their reception has been confirmed by the receiver (page 108

last two lines); receiving control messages of a first type from the receiver containing repetition requests with respect to at least one of the transmitted messages which ensure that the first type control messages do not trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used (page107-108 section II.4 figure II.17); receiving control messages of a second type from the receiver containing repetition requests with respect to at least one of the transmitted messages which do not ensure that the second type of control messages do not trigger unnecessary repetitions when their order is duplicated or swapped by the transport layer used (page107-108 section II.4 figure II.17 and II.18). Q.2111 doesn't disclose providing a state variable in the transmission buffer that carries a state specifying whether a message has already been retransmitted at least once; and ignoring, by the transmitter, a repetition request contained in the second type control messages when the state in the transmission buffer specifies that the message has already been retransmitted at least once. Hamilton discloses providing a state variable in the transmission buffer that carries a state specifying whether a message has already been retransmitted at least once (figure 7 block 134; column 18 lines 46-64); and ignoring, by the transmitter, a repetition request contained in the second type control messages when the state in the transmission buffer specifies that the message has already been retransmitted at least once (figure 7 block 132; column 18 lines 46-64). Q.2111 and Hamilton are analogous art because they are from the same field of ARQ systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the error recovery disclosed by Q.2111 the retransmission

technique disclosed by Hamilton. The suggestion/motivation for doing so would have been to number of retransmissions and to reduce the network traffic (Hamilton column 18 lines 55-61).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Crisler (US 5477550 A) discloses a method for communicating data using a modified SR-ARQ protocol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
06-07-2006